



FIRE RESISTIVE CONSTRUCTION REQUIREMENTS (WILDLAND URBAN INTERFACE – WUI)

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
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Promoting the Wise Use of Land • Helping to Build Great Communities

Residential and Commercial Projects Based on the 2010 CRC and the 2010 CBC

These requirements apply only to **new buildings**. These requirements **DO NOT APPLY** to:

- 1) Additions to existing buildings unless: The existing building was required to be built to WUI standards (application date on or after January 1, 2008).
- 2) A 120 SF max U occupancy $\geq 30'$ from a building required to be WUI compliant.
- 3) Any other U occupancies of any size $\geq 50'$ from a building required to be WUI compliant.
- 4) Remodels of buildings originally constructed prior to the applicable application date of January 1, 2008.
- 5) Detached accessory structures such as carports, patio covers or trellises which are less than 50' from a structure required to be WUI compliant, unless required by the enforcing agency.

Definitions

Heavy Timber: Heavy timber shall be sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches. Heavy timber walls or floors shall be sawn or glue-laminated planks splined, tongue-and-grove, or set close together and well spiked.

Ignition Resistant Construction: "Ignition resistant construction" includes noncombustible materials, fire retardant treated wood identified for exterior use, and fire retardant treated wood shakes and shingles listed for use as a class B roof covering used as a wall covering when installed over solid sheathing, or

Any material listed on OSFM website as being ignition resistant.

(<http://www.osfm.fire.ca.gov/strucfireengineer/pdf/bml/wuiproducts.pdf>)

Log Wall Construction: A type of construction in which exterior walls are constructed of solid wood members and where the smallest horizontal dimension of each solid wood member is at least 6 inches.

Roof Eave: Roof eaves may be either "open" or "enclosed." Open roof eaves have exposed rafter tails and an unenclosed space on the underside of the roof deck

Note: In all of the following categories, the use of paints, coatings, stains or other surface treatments are not an approved method of protection.

Roofing

- 1) Roof coverings in Very High Fire Hazard Severity zones shall be fire retardant "Class A" minimum. This includes fire retardant wood shakes and shingles unless not allowed by the fire authority having jurisdiction.

- 2) Roof coverings in High Fire Hazard Severity zones in State Responsibility Areas shall be "Class B" minimum. This includes fire retardant wood shakes & shingles unless not allowed by the fire authority having jurisdiction.
- 3) Roof coverings in Moderate Fire Hazard Severity zones and all other areas shall be fire retardant "Class C" minimum, unless prohibited by the local fire agency.
- 4) Where there is an opening between the roof covering and the roof decking, the opening must be fire stopped, constructed to prevent the intrusion of flames & embers **or** have one layer 72# mineral cap sheet under the openings to protect the roof deck.
- 5) Exposed roof valleys are to be 26 ga min metal with 36" wide, 72lb cap sheet under.
- 6) Asphalt shingles overlapping the valley are an acceptable alternative.
- 7) Gutters are to be designed to prevent the accumulation of debris.

Vents

- 1) ANY underfloor or attic vent (*except for vents located on the underside of eaves*) need only be noncombustible, corrosion resistant and have 1/16"-1/8" max openings.
- 2) Vents located under the roof covering or along the ridge need not be noncombustible (for example Smart Vents).
- 3) Eave & Cornice Vents
- 4) Noncombustible, corrosion resistant vents having 1/16"-1/8" max openings CAN be used in the under side of eaves if:
 - a. The attic is fully sprinklered with a full 13 system, or
 - b. The vent is more than 12' above grade or walking surface and the wall covering and exposed underside of the eave are of ignition resistant construction.

Otherwise, eave and cornice vents must be designed to prevent the intrusion of flames & burning embers .

Exterior Coverings

Walls and the exposed underside of open or closed eave overhangs, soffits, porch ceilings, floor projections and underfloor areas need only be:

- 1) Covered with ignition resistant materials (see above), constructed of heavy timber or log walls, or
- 2) Install one layer of 5/8X on the exposed side under ANY type of wall covering, or
- 3) Have the exposed side covered by the exterior portion of a 1 hr fire resistive exterior wall assembly as found in the Gypsum Association Fire Resistance Design Manual.

Note: The following are **Exempted** and **Need Not Comply**

- 1) 2x nominal wood rafter tails or the blocking between them.
- 2) Fascia, architectural trim, gutters.
- 4) Roof projections from gable ends or cornices.
- 5) Heavy-timber structural columns and beams.

Exterior Windows And Doors

All exterior glazing including skylights is to comply with the following:

- 1) One pane of a multipane window to be tempered, or
- 2) Glass block, or
- 3) 20 minute rated, or
- 4) Any approved window listed on OSFM website.
(<http://www.osfm.fire.ca.gov/strucfireengineer/pdf/bml/wuiproducs.pdf>)

Note: Structural glass veneer need not comply as long as there is an approved wall assembly behind the glass meeting the requirements for exterior wall coverings.

Note: Window sash, stile, and frames may be of wood, aluminum, vinyl, or fiberglass material. (OSFM interpretation 10-013)

Exterior doors are to comply with the following:

- 1) The exterior surface or cladding shall be of ignition resistant or non-combustible material, or
- 2) 20 min rated, or
- 3) 1 3/8" solid core wood or panel doors. Raised panels are to be 1 1/4" thick min tapering to not less than 3/8" thick.

Decking

The walking surface (ONLY) of decks, balconies, porches and stairs within 10' of a building required to be WUI compliant shall be of the following materials:

- 1) Ignition resistant (see above), exterior fire retardant treated wood or,
- 2) Solid wood decking (redwood or cedar 5/4" thick nominal 6" wide) over 2x6 min DF joists 24" or less on center or,
- 3) Any other decking materials listed on OSFM website.
(<http://www.osfm.fire.ca.gov/strucfireengineer/pdf/bml/wuiproducs.pdf>)

Dex-O-Tex waterproof membrane for impermeable decks is "Class A" rated and an approved covering. The following are examples of compliant "TREX" decking:

- 1) "Trex Accents: Fire Defense" wood and polyethylene composite deck board, nominal 5/4" thick x 5-1/2" width
- 2) "Trex Escapes" cellular PVC composite deck board, nominal 1" thick x 5-1/2" width.

Guards and deck structural members need not be WUI compliant.

Accessory Structures

- 1) Attached trellises, arbors, patios, carports and gazebos or similar structures attached to *applicable buildings* are required to be of ignition resistant construction.
- 2) Applicable buildings are buildings that were applied for after January 1, 2008.

Approved Eave Vents

- 1) Vulcan Technologies
- 2) Brandguard
- 3) O'Hagin's (Fire resistant roof deck vents. May not work in under eave application. Check with manufacturer)
- 4) Vivico "FireGuardVent"
- 5) "Smart Vents" by DCI Products